

## **What is claimed is:**

- [Claim 1]** 1. A finless training projectile comprising:  
a body;  
a nose secured to a forward section of the body;  
a tail secured to a rearward section of the body;  
wherein the tail comprises a generally cylindrical tail piece and a slotted tail flange;  
wherein the slotted tail flange comprises a plurality of radially angled slots for achieving spin during flight of the training projectile, to compensate for aerodynamic or mass asymmetries; and  
wherein the nose provides increased mass to move a center of gravity of the projectile to a forward position, and allows a center of pressure to remain in a constant position during flight, so that a distance between the center of gravity and the center of pressure remains constant during flight, thereby providing improved flight stability over an extended range.
- [Claim 2]** 2. The training projectile of claim 1, wherein the body and the tail are dimensioned to be fired from any one of a smooth bore or a rifled cannon of 120 mm.
- [Claim 3]** 3. The training projectile of claim 1, wherein the body and the tail are dimensioned to be fired from any one of a smooth bore or a rifled cannon of 105 mm.
- [Claim 4]** 4. The training projectile of claim 1, wherein the slotted tail flange comprises a range of approximately 2 to 8 the radially angled slots that are spaced evenly around a circumference of the slotted tail flange.
- [Claim 5]** 5. The training projectile of claim 1, wherein the radially angled slots have a width of approximately 18.1 mm.

**[Claim 6]** 6. The training projectile of claim 1, wherein the radially angled slots have a depth of approximately 10.1 mm.

**[Claim 7]** 7. The training projectile of claim 1, wherein the tail comprises:  
a cylindrical section;  
wherein the cylindrical section has a diameter similar to a diameter of the short cylindrical section of the body; and  
wherein the cylindrical section is connected to the short cylindrical section of the body.

**[Claim 8]** 8. The training projectile of claim 1, wherein the radially angled slots define an angle of approximately 30 degrees with respect to an axis of the training projectile.

**[Claim 9]** 9. The training projectile of claim 1, wherein the body comprises an inwardly tapering section; and  
wherein the body comprises a short cylindrical section.

**[Claim 10]** 10. The training projectile of claim 1, wherein the nose has a generally ogival shape.

**[Claim 11]** 11. The training projectile of claim 1, wherein the nose has a generally cone shape.

**[Claim 12]** 12. The training projectile of claim 1, wherein the nose has a generally ogival/cone combination shape.

